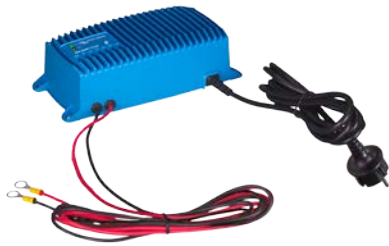


# Blue Smart IP67 Charger

120 VAC



Blue Smart IP67 Charger 12/25



### Bluetooth Smart enabled

The Blue Smart IP67 Charger is the wireless solution to monitor voltage and current, to change settings and to update the charger when new features become available.

With Bluetooth, the functionality of the IP67 charger is enhanced and is similar to that of our IP22 and IP65 chargers.

### Completely encapsulated: waterproof, shockproof and ignition protected

Water, oil or dirt will not damage the Blue Smart IP67 Charger. The casing is made of cast aluminium and the electronics are moulded in resin.

### The highest efficiency ever!

Setting a new industry standard: with 92% efficiency or better, these chargers waste three to four times less heat. And once the battery is fully charged, power consumption reduces to less than a Watt, some five to ten times better than the industry standard.

### Adaptive 5-stage charge algorithm: bulk – absorption – recondition – float – storage

The Blue Smart Charger features a microprocessor controlled 'adaptive' battery management. The 'adaptive' feature will automatically optimise the charging process relative to the way the battery is being used.

### Storage Mode: Less maintenance and aging when the battery is not in use

The storage mode kicks in whenever the battery has not been subjected to discharge during 24 hours. In the storage mode float voltage is reduced to 2,2 V/cell (13,2 V for a 12 V battery) to minimise gassing and corrosion of the positive plates. Once a week the voltage is raised back to the absorption level to 'equalize' the battery. This feature prevents stratification of the electrolyte and sulphation, a major cause of early battery failure.

### Also charges Li-ion (LiFePO<sub>4</sub>) batteries

LiFePO<sub>4</sub> batteries are charged with a simple bulk – absorption – float algorithm.

### Protected against overheating

Can be used in a hot environment such as a machine room. Output current will reduce as temperature increases up to 60°C, but the charger will not fail.

### Two LEDs for status indication

Yellow LED: bulk charge (blinking fast), absorption (blinking slow), float (solid), storage (off)  
Green LED: power on

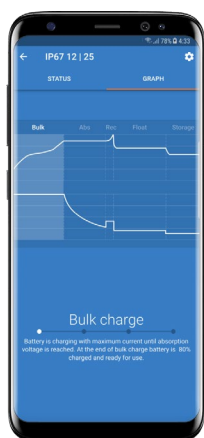
Blue Smart IP67 Charger	12/7	12/13	12/17	12/25	24/5	24/8	24/12
Input voltage range and frequency	100-135 VAC 45-65 Hz						
Efficiency	93%	93%	95%	95%	94%	96%	96%
No load power consumption	0.5W						
Charge voltage 'absorption'	Normal: 14,4V High: 14,7V Li-ion: 14,2V			Normal: 28,8V High: 29,4V Li-ion: 28,4V			
Charge voltage 'float'	Normal: 13,8V High: 13,8V Li-ion: 13,5V			Normal: 27,6V High: 27,6V Li-ion: 27,0V			
Charge voltage 'storage'	Normal: 13,2V High: 13,2V Li-ion: 13,5V			Normal: 26,4V High: 26,4V Li-ion: 27,0V			
Charge current, normal mode	7A	13A	17A	25A	5A	8A	12A
Charge current, LOW	2A	4A	6A	10A	2A	3A	4A
Charge algorithm	5-stage adaptive						
Can be used as power supply	yes						
Protection	Battery reverse polarity (fuse)		Output short circuit		Over temperature		
Operating temp. range	-20 to +60°C (full rated output up to 40°C)				Derate 3% per °C above 40°C		
Humidity	Up to 100%						
Start interrupt option (Si)	Short circuit proof, current limit 0,5 A Output voltage: max one volt lower than main output						
<b>ENCLOSURE</b>							
Material & Colour	aluminium (blue RAL 5012)						
Battery-connection	Black and red cable of 1,5 meter						
230 V AC-connection	Cable of 1,5 meter with CEE 7/7 plug						
Protection category	IP67						
Weight (kg)	1,8	1,8	2,4	2,4	1,8	2,4	2,4
Dimensions (h x w x d in mm)	85 x 211 x 60	85 x 211 x 60	99 x 219 x 65	99 x 219 x 65	85 x 211 x 60	99 x 219 x 65	99 x 219 x 65
<b>STANDARDS</b>							
Safety	UL 1236, CSA C22.2, EN 60335-1, EN 60335-2-29						
Emission Immunity	EN 55014-1, EN 61000-6-3, EN 61000-3-2						
Automotive Directive	EN 55014-2, EN 61000-6-1, EN 61000-6-2, EN 61000-3-3						

# Blue Smart IP67 Charger

230 VAC



Blue Smart IP67 Charger 12/25



### Bluetooth Smart enabled

The Blue Smart IP67 Charger is the wireless solution to monitor voltage and current, to change settings and to update the charger when new features become available.

With Bluetooth, the functionality of the IP67 charger is enhanced and is similar to that of our IP22 and IP65 chargers.

### Completely encapsulated: waterproof, shockproof and ignition protected

Water, oil or dirt will not damage the Blue Smart IP67 Charger. The casing is made of cast aluminium and the electronics are moulded in resin.

### The highest efficiency ever!

Setting a new industry standard: with 92% efficiency or better, these chargers waste three to four times less heat. And once the battery is fully charged, power consumption reduces to less than a Watt, some five to ten times better than the industry standard.

### Adaptive 5-stage charge algorithm: bulk – absorption – recondition – float – storage

The Blue Smart Charger features a microprocessor controlled 'adaptive' battery management. The 'adaptive' feature will automatically optimise the charging process relative to the way the battery is being used.

### Storage Mode: Less maintenance and aging when the battery is not in use

The storage mode kicks in whenever the battery has not been subjected to discharge during 24 hours. In the storage mode float voltage is reduced to 2,2 V/cell (13,2 V for a 12 V battery) to minimise gassing and corrosion of the positive plates. Once a week the voltage is raised back to the absorption level to 'equalize' the battery. This feature prevents stratification of the electrolyte and sulphation, a major cause of early battery failure.

### Also charges Li-ion (LiFePO<sub>4</sub>) batteries

LiFePO<sub>4</sub> batteries are charged with a simple bulk – absorption – float algorithm.

### Protected against overheating

Can be used in a hot environment such as a machine room. Output current will reduce as temperature increases up to 60°C, but the charger will not fail.

### Two LEDs for status indication

Yellow LED: bulk charge (blinking fast), absorption (blinking slow), float (solid), storage (off)  
Green LED: power on

Blue Smart IP67 Charger	12/7	12/13	12/17	12/25	24/5	24/8	24/12
Input voltage range and frequency	180-265 VAC 45-65 Hz						
Efficiency	93%	93%	95%	95%	94%	96%	96%
No load power consumption	0.5W						
Charge voltage 'absorption'	Normal: 14,4V High: 14,7V Li-ion: 14,2V			Normal: 28,8V High: 29,4V Li-ion: 28,4V			
Charge voltage 'float'	Normal: 13,8V High: 13,8V Li-ion: 13,5V			Normal: 27,6V High: 27,6V Li-ion: 27,0V			
Charge voltage 'storage'	Normal: 13,2V High: 13,2V Li-ion: 13,5V			Normal: 26,4V High: 26,4V Li-ion: 27,0V			
Charge current, normal mode	7A	13A	17A	25A	5A	8A	12A
Charge current, LOW	2A	4A	6A	10A	2A	3A	4A
Charge algorithm	5-stage adaptive						
Can be used as power supply	yes						
Protection	Battery reverse polarity (fuse)		Output short circuit		Over temperature		
Operating temp. range	-20 to +60°C (full rated output up to 40°C)				Derate 3% per °C above 40°C		
Humidity	Up to 100%						
Start interrupt option (Si) (12/25 and 24/12 models only)	Short circuit proof, current limit 0,5 A Output voltage: max one volt lower than main output						
<b>ENCLOSURE</b>							
Material & Colour	aluminium (blue RAL 5012)						
Battery-connection	Black and red cable of 1,5 meter						
230 V AC-connection	Cable of 1,5 meter with CEE 7/7 plug						
Protection category	IP67						
Weight (kg)	1,8	1,8	2,4	2,4	1,8	2,4	2,4
Dimensions (h x w x d in mm)	85 x 211 x 60	85 x 211 x 60	99 x 219 x 65	99 x 219 x 65	85 x 211 x 60	99 x 219 x 65	99 x 219 x 65
<b>STANDARDS</b>							
Safety	EN 60335-1, EN 60335-2-29						
Emission Immunity	EN 55014-1, EN 61000-6-3, EN 61000-3-2						
Automotive Directive	EN 55014-2, EN 61000-6-1, EN 61000-6-2, EN 61000-3-3						



## The battery is charged, smartly... to perfect condition

The seven-step charging algorithm gets the best out of your battery. The charger gives the battery the power it needs, maintains its health, ensures better performance... and a longer life.



## Recovery of deeply-discharged 'dead' batteries

Unlike other brands, the Blue Smart IP67 Charger Waterproof will attempt to recharge a deeply-discharged battery by force-feeding it with a low current. Normal charging will then be resumed as soon as there is sufficient voltage across the battery terminals.



## Check the status of your battery remotely

Blue Smart IP67 Charger Waterproof is equipped with built-in Bluetooth, so the status of the charger and the battery can be checked on a smartphone, tablet or laptop. All settings of the charger can be configured with the VictronConnect app.



Learn more about automotive tools we have.